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## Network Intercom (Hot Type D and Hot Type I Enhancements)

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Hot Line enables a designated telephone to place calls to a predetermined destination that may be internal or external to the Meridian 1. The call does not require attendant intervention. When the handset is lifted, or when a preprogrammed key is activated, the system automatically dials a preprogrammed DN. Hot Lines access a set of Terminal Numbers programmed by direct entry using LD 11, or by list entry such as System Speed Call (SCC) using LD 18. Once a Hot Line call enters the ringing state, it is the same as a normal call.

Prior to Release 21, there were two types of Hot Line keys (DN-based Hot Type D, and Speed Call List-based Hot Type L). Release 21 introduces another type of Hot Line key – Hot Type I, while also providing improvements to the existing Hot Type D. These two improvements function in both standalone and network environments.

### Hot Type I

An option is available with Hot Type I to provide a No Answer Indication informing the called party that a Hot Line call was made during the called party's absence. If a Hot Line call cannot be completed on the Hot Line key, the calling party is informed via the set's display, and the call is completed over the network as a normally dialed call that attempts to terminate on the destination Prime DN.

## Hot Type D Enhancement

Hot Type D provides the ability for Meridian digital sets to have two-way intercom calls on specially designated keys (not on the DN keys) with other Meridian digital sets connected to Meridian 1 PBXs across a Meridian Customer Defined Network (MCDN) Integrated Services Digital Network (ISDN). A Hot Type D call can now terminate in three different modes: Voice, Ringing, and Non-ringing (prior to Release 21, only ringing mode was available). With the Voice mode, speech path is automatically connected after a short ring. With Ringing and Non-ringing modes, the call must be manually answered by the called party; the difference between the two modes is that for Non-ringing no audible tone is given (the Hot Line key flashes to indicate the call).

Hot Type D allows more than one set having the same target DN defined for the Hot Type D key. This enhancement includes Voice, Ringing, and Non-ringing termination modes, and the capability to leave a No Answer Indication in some situations (i.e., the Hot Line key winks). A call terminating on an enhanced Hot Type D key operates the same as if terminating on a Hot Type I key, if the originating DN is the same as the target DN defined for the key. If it is not the same, but another Hot Line key exists on the set that has a target DN that matches the originating DN, a No Answer Indication is left on that key.

**Note:** When configuring two-way Hot Type D keys in voice mode, it must be taken into account the fact that the CLID does not transmit the originator's Hot Type D DN between ISDN locations; it contains the prime DN of the originating set, and not the originator's Hot Type D DN. Therefore, ringing may occur on the Hot Type D key rather than immediate answer, since a match could not be found for the originator's Hot Type D DN. For this reason also, when the configured mode is either voice, ringing, or non-ringing, a "No Answer Indication" is not left on the set called set of a two-way Hotline. It is therefore recommended that the Hot Type I be used for a two-way Hotline, since it relies only on the prime DN.

## Operating parameters

Hot Type I calls are not allowed on analog (500/2500 type) sets.

Hot Line keys cannot be defined for M3000 sets.

A Hot Line key should not be defined on a station without a Prime DN and likewise should not be defined on the primary key. If this is not done, the improved functionality will not work and the call is treated as a non-Hot Line call.

The network DN for Hot Type I and the Hot Type D (when the No Answer Indication applies) must be either a Coordinated Dialing Plan or a Universal Dialing Plan number that must terminate on a Prime DN of a Meridian digital set; otherwise, the call is competed as a non-Hot Line call.

The network-wide application of Hot Type I is only applicable to nodes in a Primary Rate Interface (PRI), ISDN Signaling Link (ISL), Virtual Network Services (VNS), and Basic Rate Interface network. The originating and terminating nodes of the Network Intercom (Hot Type D and Hot Type I Enhancements) feature must be Meridian 1 switches running a minimum of Release 21 software. Tandem nodes in the private network must be Meridian 1 (minimum Release 21 software) or another MCDN node able to transfer Remote Operations Service Element (ROSE) facilities.

If the termination mode is voice and the called party is idle and the handsfree voice call (HVA in LD 15) is active, there is no indication to the software that the called party really answered the call. If any other key is pressed, the No Answer Indication is not left.

Hot Line keys must be defined with the same dialing plan.

## Feature interactions

### **Attendant Blocking of DN**

A Hot Type I key cannot be blocked by the attendant because it has no DN.

Pressing a Hot Type D key that is attendant blocked establishes the call on the source side of the attendant.

**Auto Hold**

If a user who originated a Hot Type I call receives or makes another call on another DN, pressing that DN puts the established call on hold. If a user presses the Hot Type I key while a call is established on it, the call is placed on hold. If the Hot Type I key is pressed while a call is established on another DN, the established call is put on hold. If a station with automatic hold allowed Class of Service receives an Hot Line call, the user of that station can put the active call on hold by pressing the Hot Type I key or by making or answering another call on another key.

**Automatic Call Distribution (ACD)**

Hot Type I calls cannot terminate on an ACD DN. A call attempting to terminate on an ACD DN receives overflow tone. Hot Line calls involving ACD sets must use the Hot Type D option.

**Busy Forward Status (BFS)**

In a Secretarial Filtering scenario, the secretary's BFS lamp also will reflect that the boss' set is busy if the boss is on a Hot Type I call.

**Call Forward**

Hot Type I calls respect or override all kinds of Call Forward features (Busy, No Answer, All Calls, Internal, etc.) according to per-set definitions. If Call Forward is respected, the call becomes a normally dialed call and the originator will receive the appropriate indication on their display.

**Call Join**

Hot Type I calls can be moved to the Conference key with the Call Join feature.

**Call Park**

Hot Type I calls cannot be parked.

**Call Party Name Display**

Hot Type I calls display names the same as a normal call.

Hot Type I calls that become a normal call indicate on the originating station's display that the call is no longer a Hot Line call.

**Call Pickup**

Hot Type I calls cannot be picked up. An attempt to pick up a Hot Type I call results in an overflow tone.

**Call Transfer**

Hot Type I calls may be transferred to another Hot Line key or to a normal DN key; likewise calls on a normal DN key may be transferred to a Hot Line key.

**Conference**

A Conference call may involve a mixture of intercom and regular DN keys.

**Display Key**

Hot Type I calls are supported by the Display key feature; pressing the Display key and then the Hot Type I key will show the target DN on the originating station's display.

**Do Not Disturb (DND)**

Hot Type I calls ignore the Do Not Disturb feature. Hot Line calls are presented to the defined target, even when DND is activated.

**Flexible Feature Code (FFC) Boss Secretarial Filtering**

Hot Type I calls overrides this feature (i.e., Hot Type I calls are not filtered by FFC Boss Secretarial filtering). The call terminates on the Boss' set and is not forwarded to the secretary.

FFC Boss Secretarial Filtering takes precedence over enhanced Hot Type D calls. In this case, if FFC Boss Secretarial Filtering is active, calls terminate on the secretary's set.

**Last Number Redial**

A Hot Line key cannot be redialed using the Last Number Redial feature.

**Make Set Busy**

Hot Type I calls terminating on a station in the Make Set Busy mode override Make Set Busy.

**Multiple Appearance Redirection Prime (MARP)**

If more than one set is allocated the same prime DN, the Hot Type I call will terminate on the set designated as the Multiple Appearance Redirection Prime (MARP). If the MARP DN is not the prime DN on the set, or if the set designated as the MARP DN is not a Meridian digital set, the first Meridian digital set with the prime DN will be used. If none of these conditions are met, the call will terminate as a non-Hot Line call and the calling party will be notified on the display.

Hot Type D calls can have voice termination only on a MARP Terminal Number (TN), or if there is no MARP TN, then on the first TN in the TN list. A No Answer Indication for Hot Type D can only be left on the MARP TN, or if there is no MARP TN, then on the first TN in the TN list.

**Override**

An internal Hot Type I call never returns busy, unless the call became a non-Hot Line call due to the Hot Line key being busy. In this case, the call behaves like a normally dialed call, and Override can be used upon receipt of a busy signal.

**Ring Again**

Hot Line calls terminating on a busy key become normal calls. Hence, they may use the Ring Again feature under normal circumstances.

**Ring Again – No Answer**

If Ring Again No Answer is activated for a Hot Type I call, it is activated as if the call had been dialed normally.

**Ringing Change Key**

The ringing/non-ringing mode of an enhanced Hot Type D or of a Hot Type I key is not changeable by using the Ringing Change Key feature.

**Vacant Number Routing**

Hot Types I keys and enhanced Hot Type D keys support Vacant Number Routing.

## Feature packaging

The Network Intercom (Hot Type D and Hot Type I Enhancements) feature is included in Enhanced Hot Line (HOT) package 70.

For Hot Type I in an ISDN network the following packages are required:

- Advanced ISDN Network Services (NTWK) package 148
- Integrated Services Digital Network (ISDN) package 145
- and at least one of 1.5 Mbps Primary Rate Interface (PRA) package 146, Integrated Services Digital Network Signaling Link (ISL) package 147, and 1.5 Mbps Primary Rate Interface (PRI2) package 146

## Feature implementation

**Note:** When configuring two-way Hot Type D keys in voice mode, it must be taken into account the fact that the CLID does not transmit the originator's Hot Type D DN between ISDN locations; it contains the prime DN of the originating set, and not the originator's Hot Type D DN. Therefore, ringing may occur on the Hot Type D key rather than immediate answer, since a match could not be found for the originator's Hot Type D DN. For this reason also, when the configured mode is either voice, ringing, or non-ringing, a "No Answer Indication" is not left on the set called set of a two-way Hotline. It is therefore recommended that the Hot Type I be used for a two-way Hotline, since it relies only on the prime DN.

**LD 11** – Define Hot Type D and I keys and Classes of Service as follows:

| Prompt | Response       | Description                                            |
|--------|----------------|--------------------------------------------------------|
| REQ    | NEW, CHG, OUT  | Configure, change or remove.                           |
| TYPE   | aaaa           | Telephone type where aaaa cannot = M3000.              |
| TN     | l s c u<br>c u | Terminal Number.<br>Terminal Number for the Option 11. |
| ...    |                |                                                        |

|     |                                               |                                                                                                                                                                                                                                                                                       |
|-----|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CLS | FICA<br>(FICD)<br>NAIA<br>(NAID)              | Forward Hot Type I allowed.<br>Forward Hot Type I denied (default).<br>No Answer indication allowed.<br>No Answer indication denied (default).                                                                                                                                        |
| ... |                                               |                                                                                                                                                                                                                                                                                       |
| KEY | nn HOT D dd<br>target_num hot_dn<br>R/V/N/(H) | Two-way Hot Line type D Key.<br>nn = key number.<br>dd = number of digits dialed.<br>target_number = terminating DN (31 digits maximum).<br>Hot_dn = two-way Hot Line DN.<br><br>Termination mode:<br>R = Ringing<br>V = Voice<br>N = Non-ringing, and<br>H = Hot Line (the default). |
| KEY | nn HOT I dd<br>target_number<br>(V)/N/R       | Hot Line type I key.<br>nn = key number.<br>dd = number of digits dialed.<br>target_number = terminating DN (31 digits maximum).<br><br>Termination mode:<br>V = Voice (the default)<br>N = Non-ringing, and<br>R = Ringing.                                                          |

**LD 95** – Configure the Calling Party Name Display:

| Prompt | Response  | Description                                                                      |
|--------|-----------|----------------------------------------------------------------------------------|
| REQ    | NEW, CHG  | Configure or change.                                                             |
| TYPE   | CPND      | Calling Party Name Display.                                                      |
| CUST   | 0-99      | Customer Number.                                                                 |
| ...    |           |                                                                                  |
| NITC   | aaaa (NI) | Non-Hot Line call. Indicates that the Hot Line call terminated as a normal call. |



## Feature operation

Press the Hot Type I or D key to initiate a Hot Line call to a target DN (the DN may be an external DN in an MCDN ISDN network).

The called party answers the call by pressing their Hot Type I or D key if configured. If the called party has no Hot Type I or D key configured, the call will behave as a normal call and is answered accordingly.

If the called party does not answer, and has No Answer Indication Allowed Class of Service, the Hot Type I or Hot Type D key will be winking as a form of No Answer Indication.

**Note:** When configuring two-way Hot Type D keys in voice mode, it must be taken into account the fact that the CLID does not transmit the originator's Hot Type D DN between ISDN locations; it contains the prime DN of the originating set, and not the originator's Hot Type D DN. Therefore, ringing may occur on the Hot Type D key rather than immediate answer, since a match could not be found for the originator's Hot Type D DN. For this reason also, when the configured mode is either voice, ringing, or non-ringing, a "No Answer Indication" is not left on the set called set of a two-way Hotline. It is therefore recommended that the Hot Type I be used for a two-way Hotline, since it relies only on the prime DN.